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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 09/702,357      | 10/30/2000  | Stefan Klemens Muller | 5150-45700          | 1650             |

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EXAMINER

TRUONG, LECHI

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2126     |              |

DATE MAILED: 09/16/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                          |                  |
|------------------------------|--------------------------|------------------|
| <b>Office Action Summary</b> | Application No.          | Applicant(s)     |
|                              | 09/702,357               | MULLER ET AL.    |
|                              | Examiner<br>LeChi Truong | Art Unit<br>2126 |

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 30 October 2000.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. Claims 1, 3, 5, 10 –15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al (US Patent 5,293,597) in view of Allegrucci et al (US 5,428,779).

**As to claim 1**, Jensen teaches a target function (process B, col 2, ln 55-68/ col 3, l n 45-68/ col 4, ln 35-68), start function (process C, col 2, ln 55-68/ col 3, l n 45-68/ col 4, ln 35-68), a processor with a memory unit (MMU)(a memory management unit MMU, col 1, ln 28-58/col 4, ln 35-67/ col 5, ln 1-45), a computer (CPU, col 1, ln 10-55), a operating system (operating system, col 2, ln 49-55), a component of first task (read /write, col 2, ln 54-68/col 5, ln 48-68), a first memory context (a context identification of read, col 2, ln 55-68), a second memory context( the context designation of write, col 2, ln 55-68).

Jensen does not teach a context switch from the first memory context into the other memory context a reversed after the execution. However, Allegrucci teaches context switch, switch from one context to another context, restoring and switching tasks( col 2, ln 9-20/col 3, ln 1-29/ ln 48-68).

It would have been obvious to apply the teaching of Allegrucci to Jensen in order to provide the context switching mechanism that can achieve the necessary context switching speed, and thus keep up with multitasking application.

**As to claim 3**, Jensen teaches part of first task (VB, Fig 2), part of second task (VC, Fig .2), target function (process C, Fig. 2), a new memory context (physical address within memory 12, col 4, ln 21-68/ col 3, ln 50-60/ fig. 2).

Jensen does not teach a context switch is performed into the shared memory. However, However, Allegrucci teaches context switch, switch from one context to another context, restoring and switching tasks (col 2, ln 9-20/col 3, ln 1-29/ ln 48-68).

It would have been obvious to apply the teaching of Allegrucci to Jensen in order to provide the context switching mechanism that can achieve the necessary context switching speed, and thus keep up with multitasking application.

**As to claim 5**, Jensen teaches deactivating the interrupt handling (no need to switch the MMU back and forth between process, col 3, ln 1-15).

**As to the software program of claim 10**, see the rejection of claim 1.

**As to claim the software program of claim 11**, see the rejection of claim 1.

**As to the machine-readable data of claim 12**, see the rejection of claim 1.

**As to the method of claim 13**, see the rejection of claim 1.

**As to the method of claim 14**, see the rejection of claim 2.

**As to the method of claim 15**, see the rejection of claim 3.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al (US. Patent 5,293,597) in view of Allegrucci et al (US 5,428,779) and further in view of Golson (US. Patent 5,390,332).

**As to claim 2**, Jensen teaches physical address (physical address, col 4, ln 30-45). Jensen does not teach the physical address of the memory context of task contain the target function

is written into the MMU control register. However, Golson teaches address space of next process ... changing the MMU table and mask register interface. (Col 8, ln 32-45).

It would have been obvious to apply the teaching of Golson to Jensen in order to switch from one protected mode application to another, which is independent of the microprocessor.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al (US. Patent 5,293,597) in view of Allegrucci et al (US 5,428,779) and further in view of Devic (US. Patent 5,987,582).

**As to claim 4**, Jensen teaches memory, mass storage, a hard disk (memory, col 1, and ln 26-54), and memory region of copy memory context (the physical address of process (col 4, ln 30-68).

Jensen does not teach memory context is locked, avoid swapping out. However, Device teaches the first memory block is locked to prevent swapping of the first memory (col 2, ln 65-67 to col 3, ln 1- 15).

It would have been obvious to apply the teaching of Device to Jensen in order to make the direct call of a function by a software module more consistent.

4. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al (US. Patent 5,293,597) in view of Allegrucci et al (US 5,428,779) and further in view Kalaynaraman (process Management Concepts).

**As to claim 6**, Jensen does not teach no a call the operating system. However, Kalaynaraman teaches direct communication (sec: Naming).

It would have been obvious to apply the teaching of Kalaynaraman to Jensen in order to perform the direct communication by the destination process in the system call without support of OS.

**As to claim 7**, Jensen does not teach a function is blocked. However, Kalaynaraman teaches blocking wait (session: Synchronous communication).

It would have been obvious to apply the teaching of Kalaynaraman to Jensen in order to make method for direct cal of function by a software module more consistent.

5. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al (US Patent 5,293,597) in view of Allegrucci et al (US 5,428,779) and further in view of Endicott (US Patent 6,029,206).

**As to claim 8**, Jensen does not teach a processing cycle. However, Endicott teaches locking cycle (col 2, ln 40-62).

It would have been obvious to apply the teaching Endicott to Jensen in order to provide an optimal performance from computers running computer programs.

6. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al (US Patent 5,293,597) in view of Allegrucci et al (US 5,428,779) and further in NEC (Server-Dispensing database implementation procedure via flag control-involves performing data processing of content of access establishment demand using server side flag control function after access establishment demand is accepted).

**As to claim 9**, Jensen does not teach a flag. However, NEC teaches flag control (page 1).

It would have been obvious to apply the teaching of NEC to Jensen in order to improve capability and reliability of the data processing of the access establishment demand.

7.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The examiner can normally be reached on 8 - 5.

Fax phone: AFTER\_FINAL faxes must be signed and sent to: (703) 746-2738, OFFICIAL faxes must be signed and send to: (703) 746-7239, NON OFFICIAL faxes should not be signed, please send to: (703) 746-7240

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 9000.

LeChi Truong  
September 2, 2003

John Follansbee  
Supervisory Patent Examiner  
Technology Center 2100